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OBSERVATIONS ON THE GENUS *MYSIDOPSIS* SARS, 1864 WITH THE DESIGNATION OF A NEW GENUS, *AMERICAMYSIS,* AND THE DESCRIPTIONS OF *AMERICAMYSIS ALLENI* AND *A. STUCKI* (PERACARIDA: MYSIDACEA: MYSIDAE), FROM THE GULF OF MEXICO

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Abstract.—*Americamysis,* a new genus, is proposed to receive six American species: *Mysidopsis bigelowi* Tattersall, 1926; *M. almyra* Bowman, 1964; *M. bahia* Molenock, 1969; *M. tarionana* Brattegard, 1973; and two new species, *Americamysis alleni* and *A. stucki. Mysidopsis bigelowi* is designated as the type species of the new genus. *Americamysis* is defined by a combination of characters, most notably: the presence of two articles in the carpo-propodus of thoracic endopods 3–8; the absence of a terminal article on antennal scale; and the presence of less than eight ventrolateral spines on uropodal endopod, all of which are confined to the region of the statocyst. *Americamysis, Mysidopsis,* and its subgenera are distinguished from each other by a variety of characters, including the morphology of the mandibular palp, antennal scale, and telson. A complete systematic review may indicate that the genus *Mysidopsis sensu lato* is polyphyletic and represents three or more distinct genera. The new species, *Americamysis alleni* and *A. stucki,* which are both only known from the Gulf of Mexico, are most similar and apparently most closely related to *A. bigelowi.* They can be separated from each other, *A. bigelowi* and the other species of *Americamysis* by the setation of their telsons and second thoracic endopods. A diagnostic table and key for separating the species of *Americamysis* and related species of *Mysidopsis* is presented. The distribution of the species within *Americamysis* extends along the Atlantic coasts of the Americas from the northeastern United States to Colombia.

The genus *Mysidopsis* Sars, 1864 presently contains a heterogeneous group of 49 nominal species, demonstrating a wide size range and a variety of morphological characters (Băcescu 1968b, Brattegard 1969, Tattersall 1969, Băcescu & Gleye 1979, Mauchline 1980). Brattegard (1969) discussed the similarity of *Mysidopsis almyra, M. bahia,* and *M. bigelowi* and designated these three northwestern Atlantic species as the "*almyra* group." Later (1973), he described *M. tarionana* from the Caribbean coast of Colombia and noted its affinities with this group.

Tattersall (1951), Clarke (1956), Stuck et al. (1979a, 1979b), Modlin (1982), Price (1982) and Price et al. (1986) reported *M. bigelowi* from the coastal and shelf waters of the northern Gulf of Mexico. Reexamination of the material used in these studies indicates the specimens identified as "*M. bigelowi*" actually represent two undescribed species within the "*almyra* group" and that *M. bigelowi sensu* Tattersall (1926) does not occur in the Gulf of Mexico. Based on Brattegard's observations and our examination of specimens of *M. almyra, M. bahia, M. bigelowi,* and the two undescribed species from the Gulf of Mexico, we now believe that the members of the "*almyra*

group" represent a distinct genus, which is endemic to the Atlantic coastal regions of the Americas.

Americamysis, new genus

Diagnosis.—Thoracic endopod 1 composed of 4 articles, preischium and ischium fused; thoracic endopods 3–8 having carpopropodus with 2 articles; antennal scale lacking distal article and spinose tip; telson linguiform, midapical spine setae much (4 times) longer than lateral spine setae; uropodal endopod armed with 8 or fewer spines adjacent to statocyst or along inner margin.

Type species: *Americamysis bigelowi* (Tattersall, 1926), new combination.

Additional species: *A. almyra* (Bowman, 1964), new combination; *A. bahia* (Molenock, 1969), new combination; *A. taironana* (Brattegard, 1973), new combination; *A. alleni,* new species; and *A. stucki,* new species.

Remarks.—*Americamysis* appears to form a natural group containing six species, all of which seem to be confined to the northwestern Atlantic. The known species of this genus are endemic to estuarine and shallow shelf waters along the east coasts of the Americas from New England to Colombia.

The combination of a distally unarticulated antennal scale, a 2-articulate carpopropodus on the endopods of thoracic limbs 3–8, distinctly fewer articles in the exopod of the fourth male pleopod, and the presence of one or more mesial pairs of apical spine-setae on the telson distinguishes the genus *Americamysis* from the type species of *Mysidopsis, M. didelphys* (Norman, 1863).

Since Sars' (1885) generic diagnosis, the generic limits of *Mysidopsis* have been broadened, resulting in the inclusion of many apparently distantly related species. Among the characters given by Sars (1885) in his generic definition of *Mysidopsis* were (1) the presence of an apical or distal article on the antennal scale and (2) three articles in the carpo-propodus of thoracic endopods 3–8. The morphological limits were broadened by the description of *Mysidopsis acuta* Hansen, 1913, the first species assigned to the genus having an antennal scale terminating in an acute spinose process and lacking an apical suture. W. Tattersall (1926) further expanded the generic definition with the description of *M. bigelowi,* a species characterized by having two (instead of three) articles in the carpo-propodus of thoracic endopods 3–8. Like *M. acuta, M. bigelowi* has an antennal scale lacking a distal suture. Unlike *M. acuta,* however, the tip of *M. bigelowi*'s antennal scale is blunt with distal setae. Excluding *M. bigelowi* and the other species being assigned to *Americamysis,* there are now six nominal species of *Mysidopsis* that lack a distal article on the antennal scales (Hansen 1913, O. Tattersall 1962, Brattegard 1973, Brattegard 1974b, Gleye 1982, and Băcescu 1984).

In a synopsis of *Mysidopsis,* O. Tattersall (1969) erroneously stated in her rediagnosis of the genus that the carpo-propodus of thoracic endopods 3–8 "is divided by a transverse suture into two subsegments . . .," which would exclude the type species and most of the other described species of the genus. She also considered the 4-articulate endopod of first thoracic appendages which was due to the fusion of the preischium and ischium, a unique character of the genus *Mysidopsis.* At present, however, there appear to be at least two other genera, *Metamysidopsis* W. Tattersall, 1951 and *Taphromysis* Banner, 1953 that have their first thoracic endopods composed of four articles as in *Mysidopsis,* instead of the five normally found in other genera of the family Mysidae (see Mauchline 1980). Based on the illustrations of Brattegard (1969, p. 62, fig. 18E) and Gleye (1982, fig. 1f), respectively, the genera *Brasilomysis* Băcescu, 1968 and *Cubanomysis* Băcescu, 1968 also may have 4-articulate first thoracic endopods. Brattegard's (1969) illustrations of *Brasilomysis castroi* Băcescu, 1968 were based on specimens from the Bahamas,

while those for *Cubanomysis mysteriosa* Gleye, 1982 accompanied the original description based on specimens from California waters. Though not described in the text, the illustration (fig. 4C) for the only other nominal species of *Brasilomysis, B.* (=*Mysidopsis*) *inermis* Coifmann, 1937) indicates four articles in the first thoracic endopod. The generic status of *B. inermis* is still unsettled. Its original and only description was quite incomplete and the type material, which came from Pacific waters off Ecuador, appears to be no longer extant. The number of articles in the first limb of the type and remaining species of *Cubanomysis, C. jimenesi* Băcescu, 1968b, has not been reported or illustrated.

O. Tattersall (1969) treated 21 species of *Mysidopsis*. Since her work the number of described species has more than doubled to 49 (including the four species being placed in *Americamysis*). Of the 28 species added to the genus since O. Tattersall's synopsis, the majority (21) are from the western Atlantic (Băcescu 1968b, 1984; Brattegard 1969, 1973, 1974a, 1974b; Modlin 1987, Moleneck 1969, da Silva 1979, Hoffmeyer 1993, Ortiz & Lalana 1993). One of these, *M. cojimarensis* Ortiz & Lalana, 1993, may be synonymous with *Antromysis* (*Parvimysis*) *bahamensis* (Brattegard 1970); however, it is tentatively retained in the genus *Mysidopsis* pending a comparison of the types of these two species. The remaining seven species are from the coastal waters of East and West Africa, the Pacific coast of North America, and Japan (Murano 1970, Băcescu & Vasilescu 1973, Băcescu 1975, Băcescu & Gleye 1979, Gleye 1982, Wooldridge 1988).

The combination of a 2-articulate carpopropodus in thoracic endopods 3–8 and an antennal scale lacking a distal article distinguishes *Americamysis* from the heterogenous group of species tentatively retained within the genus *Mysidopsis*. Eight of these species, like the members of the genus *Americamysis*, have thoracic endopods 3–8 with a 2-articulate carpo-propodus, but their antennal scales have a terminal article. Five of these, *M. californica* W. Tattersall, 1932; *M. intii* Holmquist, 1957; *M. tortonesi* Băcescu, 1968b; *M. robustispina* Brattegard, 1969 and *M. ankeli* Brattegard, 1973, differ strikingly from both the type species (*M. didelphys*) and the species being referred to the genus *Americamysis* by the presence of numerous spine-setae or true spines (*M. ankeli, M. intii*) along the inner margin of the uropodal endopod. These species, which are known only from the Atlantic and Pacific waters of the Americas, appear to be more closely related to the genus *Americamysis* than to the genus *Mysidopsis*. We have temporarily retained them within *Mysidopsis* pending further systematic revision of the genus *sensu* O. Tattersall (1969). Because of the spiniform tip of their antennal scales, three of these species (*M. californica, M. robustispina, M. tortonesi*), along with *M. acuta* and *M. coelhoi* Băcescu, 1968b, were included in Brattegard's (1969) "*coelhoi* group."

Three other species of *Mysidopsis,* two from South Africa (*M. camelina* O. Tattersall, 1955 and *M. suedafricana* O. Tattersall, 1969) and one from the tropical northwestern Atlantic (*M. bispinulata* Brattegard, 1974a), also have thoracic endopods 3–8 with a 2-articulate carpo-propodus. However, in other respects these species are quite distinct from each other and are not apparently closely related to other species with similarly articulated thoracic endopods.

Based largely on the presence of highly modified mandibular palps and telson setation, Băcescu & Gleye (1979) created the two monotypic subgenera, *Mysidopsoides* and *Pseudomysidopsis,* to receive *Mysidopsis bispinosa* O. Tattersall, 1969 and *Mysidopsis camelina* O. Tattersall, 1955, respectively. Both of these subgenera are endemic to South Africa and may represent distinct genera.

In conclusion, based on our own observations and a review of the literature, we

consider that the genus *Mysidopsis sensu lato* represents a polyphyletic melange of taxa. We believe that in addition to the "almyra" group (*Americamysis*), the other subgeneric groupings proposed by Brattegard (1969), the subgenera described by Băcescu & Gleye (1979), and other distinctive, "atypical" species or species groups (i.e., *M. angusta, M. acuta, M. ankeli-intii*) may be unrelated and may represent distinct genera. Except for members of the "almyra group", we have been unable to critically examine many of the other nominal species of *Mysidopsis,* especially those from European and African waters, belonging to these other subgeneric groupings or "atypical" species. Systematic studies of the heterogenous species or species complexes still accommodated within the genus *Mysidopsis* is needed. Such studies using the systematic tools of cladistics and molecular genetics will likely result in the removal of additional species from the genus.

Table 1 presents a listing of the nominal species currently retained within the genus *Mysidopsis* with information on their general distribution and distinctive characters for some of the atypical species or species groups. *Mysidopsis incisa* Sars, 1885, which has only been tentatively reported once (Thompson 1894) since its original description, is included. Its taxonomic status, however, remains uncertain. Eight species originally assigned to the genus, including four in this report, have been transferred to other genera. These are listed in Table 2 with their current generic designations.

Americamysis alleni, new species
Figs. 1–2

Mysidopsis bigelowi.—Tattersall 1951:139 (in part).—Price 1982:16 (in part), figs. 17, 20.—Price et al. 1986:49 (in part).

Type material.—Holotype: adult male (USNM 253072), length 5.1 mm, Biloxi Beach, Mississippi; Mississippi Sound (30°23.3′N, 88°58.5′W): depth 1 m, sand substratum, dredge net, David Hard (coll.), 27 Oct 1991.—Paratypes: 5 ♂, 5 ♀ (USNM 253073), 5♂, 5♀ (GCRL 1317), same collection data as for holotype.

Additional material examined.—Texas coast: 4 ♂ (6.3–7.3 mm), 4 ♀ (7.3–7.4), Lavaca Bay, station 1 (28°35.3′N, 96°31.7′W), depth 2.1 m, otter trawl, 4 Mar 1971.—6 ♂ (6.6–7.3 mm), 2 ♀ (6.9–7.4 mm), Lavaca Bay, station 7 (28°33.3′N, 96°28.5′W), depth 2.7 m, otter trawl, 5 Dec 1970, 2 Feb 1971.—6 ♂ (4.4–5.3), 2 ♀ (5.0–5.1 mm), West Bay, station WB6 (94°58.5′N, 29°15.8′W), depth 1.2 m, Oct 1973.—15 ♂ (5.3–6.0 mm) 15 ♀ (5.3–5.6 mm), West Bay, station WB2 (94°57.2′N, 29°14.5W), depth 1.5 m, Oct 1973.—15 ♂ (3.8–5.2), 15 ♀ (3.8–5.4 mm), West Bay, station WB4 (94°57.8′N, 29°15.0′W) depth 1.5 m, June 1973. West Bay specimens collected with epibenthic sled and all Texas material in collection of WWP.

Diagnosis.—Apex of antennal scale not pointed; endopod of thoracic leg 2 normally developed in both sexes, merus with 2–3 simple setae on inner proximal margin and 4 simple setae along outer margin; inner margin of carpo-propodus armed with 5–10, occasionally 4, spiniform setae; carpo-propodus of thoracic endopods 3–8 2-segmented; exopod of pleopod 4 of male 7-segmented; endopod of uropods armed with 3–4 (rarely 2 or 5) spine-setae near statocyst; apex of telson with 3 pairs of strong spine-setae, outermost pair ½–¾ length of inner pairs, innermost pair ⅓ or less length of telson and shorter than, or equal in length to, adjacent pair.

Description.—General body form (Fig. 1A): moderately slender, adult males to 7.3 mm and females to 7.4 mm; anterior margin of carapace produced between eyes into short, triangular rostrum; posterior dorsal margin emarginate, exposing thoracic segment 8; anterolateral corners rounded.

Antennular peduncle (Fig. 1B): more robust in males than females; segment 1 about as long as segments 2 and 3 combined, distomedial margin armed with 4–5 long and

Table 1.—Species presently included in the genus *Mysidopsis* by region. Distinctive characters of some species groups are presented.

	General location	Character*
Eastern Atlantic		
M. angusta Sars, 1864	North Europe, Western Mediterranean	(3)
M. (*Mysidopsoides*) *bispinosa* O. Tattersall, 1969	South Africa	(1, 5)
M. (*Pseudomysidopsis*) *camelina* W. Tattersall, 1955	South Africa	
M. didelphys (Norman, 1863): Type species	North Europe, Iceland, Western Mediterranean	
M. eremita W. Tattersall, 1962	South Africa	
M. gibbosa Sars, 1864	North Europe, Western Mediterranean	
M. major Zimmer, 1912	South Africa	
M. schultzei (Zimmer, 1912)	South Africa	
M. similis (Zimmer, 1912)	South Africa	
M. suedafrikana O. Tattersall, 1969	South Africa	(1)
Western Atlantic		
M. acuta Hansen, 1913	Argentina	(4)
M. ankeli Brattegard, 1973	Colombia	(1, 2)
M. arenosa Brattegard, 1974	Panama	
M. badius Modlin, 1987	Belize, Mexico	
M. bispinulata Brattegard, 1974	Colombia, Panama	(1, 5)
M. brattstroemi Brattegard, 1969	Bahamas, South Florida, Panama	
M. coelhoi Băcescu, 1968	Brazil	(4)
M. cojimarensis Ortiz & Lalana, 1993**	Cuba	
M. cultrata Brattegard, 1973	Colombia	
M. eclipis Brattegard, 1969	South Florida	
M. furca Bowman, 1957	Southeastern United States	
M. juniae da Silva, 1979	Brazil	
M. mathewsoni Brattegard, 1969	Bahamas	
M. mauchlinei Brattegard, 1974	Panama	
M. mortenseni W. Tattersall, 1951	Bahamas, South Florida, Caribbean	
M. rionegrensis Hoffmeyer, 1993	Argentina	
M. robusta Brattegard, 1974	Colombia	
M. robustispina Brattegard, 1969	Bahamas, Colombia	(1, 4)
M. sankarenkuttkyi Băcescu, 1984	Brazil	
M. tortonesei Băcescu, 1968	Brazil, Colombia	(1, 4)
M. velifera Brattegard, 1973	Caribbean	
M. virgulata Brattegard, 1974	Colombia	
Eastern Pacific		
M. acuta Hansen, 1913 sensu Holmquist (1957)	Chile	(4)
M. brattegardi Băcescu & Gleye, 1979	California	
M. californica W. Tattersall, 1932	California	(1, 4)
M. cathengelae Gleye, 1982	California	
M. intii Holmquist, 1957	Chile	(1, 2)
M. onofrensis Băcescu & Gleye, 1979	California	
Western Pacific		
M. japonica Ii, 1964	Japan	
M. surugae Murano, 1970	Japan	
M. incisa Sars, 1884 incertae sedis	Southern Australia	(3)
Indian Ocean		
M. buffaloensis Wooldredge, 1988	South Africa	
M. coralicola Băcescu, 1975	Tanzania	

Table 1.—Continued.

	General location	Character*
M. helvillensis Nouvel, 1964	Mozambique	
M. indica W. Tattersall, 1922	India	
M. kempi W. Tattersall, 1922	India	
M. kenyana Băcescu & Vasilesco, 1973	Kenya	

* Character codes: (1) 2-articulate carpo-propodus on thoracic endopods 3–8; (2) margin of uropodal endopod with serrate spines; (3) telson distinctly cleft; (4) antennal scale with acute, spinose tip; (5) lateral margins of telson lacking spine-setae.

** This species may be synonymous with *Antromysis* (*Parvimysis*) *bahamensis* (Brattegard, 1970).

2–3 shorter plumose setae, distolateral margin with 1 short and 4 long plumose setae; medial margin of segment 2 with strong simple spine and 5 plumose setae; segment 3 with 2 plumose setae along medial margin and 5–6 plumose setae distally, distal margin with dorsomedial lobe bearing 2 tooth-like processes and 2 plumose and 2–3 simple setae, 1 plumose and 1 simple seta grouped proximal to dorsomedial lobe, males with densely setose lobe on outer ventral surface.

Antenna (Fig. 1C): scale lanceolate, reaching beyond distal end of antennular peduncle, 5.5–6 times as long as maximum width, inner margin slightly convex, outer margin slightly concave, setose all around, lacking distal article; antennal peduncle extending about 0.6 length of scale, article 2 about 1⅔ times as long as 3, with 2–3 plumose setae on inner distal margin and 1 plumose seta on outer distal margin; article 3 with 2 plumose and 3 simple setae on inner distal margin and 2 plumose setae along outer margin; distolateral corner of sympod with prominent tooth.

Eyes (Fig. 1A): large, cornea wider than distal end of eyestalk, lacking ocular papilla.

Labrum (Fig. 1D): rounded anteriorly; posterior margin with medial emargination, middle ⅔ with fine setae.

Mandible (Fig. 1E): cutting edges typical of genus. Palp (Fig. 1F) 3-articulate, articles 2 and 3 more robust in males than females; article 2 armed with 10–14 submarginal simple setae along outer margin and 10–15 simple setae on inner margin, distal margin with 3–5 simple setae; article 3 about ½ as long as 2, inner surface with 3–4 marginal and 3–4 submarginal simple setae, distal portion armed with 1 long simple seta, 1 long curved spine-seta with medial barbs and 9 thick blunt densely barbed spine-setae, outer margin with 2 simple setae.

Maxillule (Fig. 1G): outer lobe with 9 stout, sparsely serrate apical spine-setae; in-

Table 2.—Nominal species of *Mysidopsis* transferred to other genera.

Original designation	Present generic designation	Reference
M. bigelowi W. Tattersall, 1927	*Americamysis*	Present study
M. almyra Bowman, 1964	*Americamysis*	Present study
M. bahia Molenock, 1969	*Americamysis*	Present study
M. taironana Brattegard, 1974	*Americamysis*	Present study
M. inermis Coifman, 1937	*Brasiliomysis*	Băcescu (1968)
M. elongata Holmes, 1900	*Metamysidopsis*	W. Tattersall (1951)
M. munda Zimmer, 1918	*Metamysidopsis*	W. Tattersall (1951)
M. pacifica Zimmer, 1918	*Metamysidopsis*	W. Tattersall (1951)

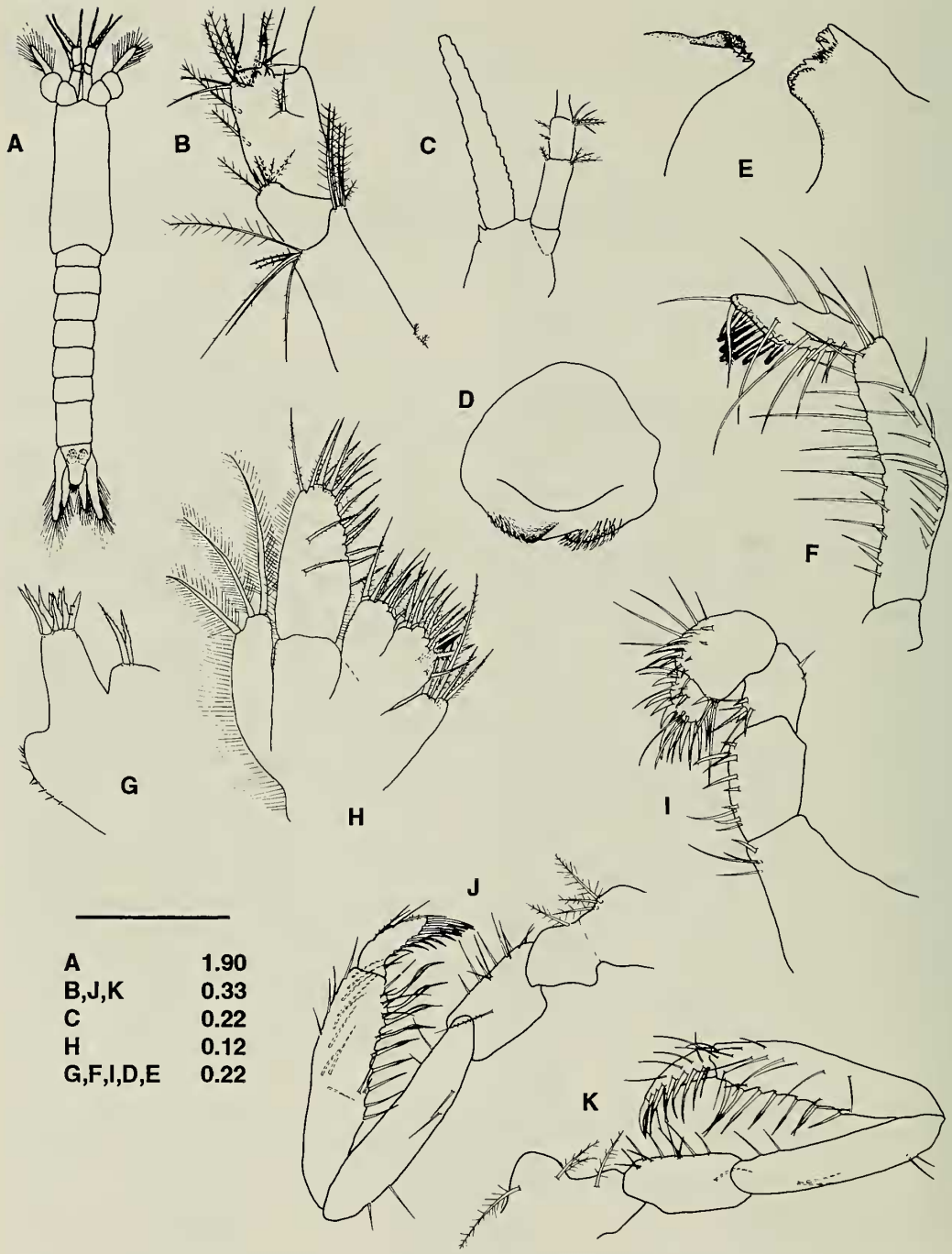

Fig. 1. *Americamysis alleni,* new species. A, adult female, dorsal view; B, antennular peduncle; C, antennal peduncle and scale; D, labrum; E, mandibles; F, mandibular palp; G, maxillule; H, maxilla; I, endopod, thoracic limb 1; J, K, endopod, thoracic limb 2, female, male, respectively. Scales in mm.

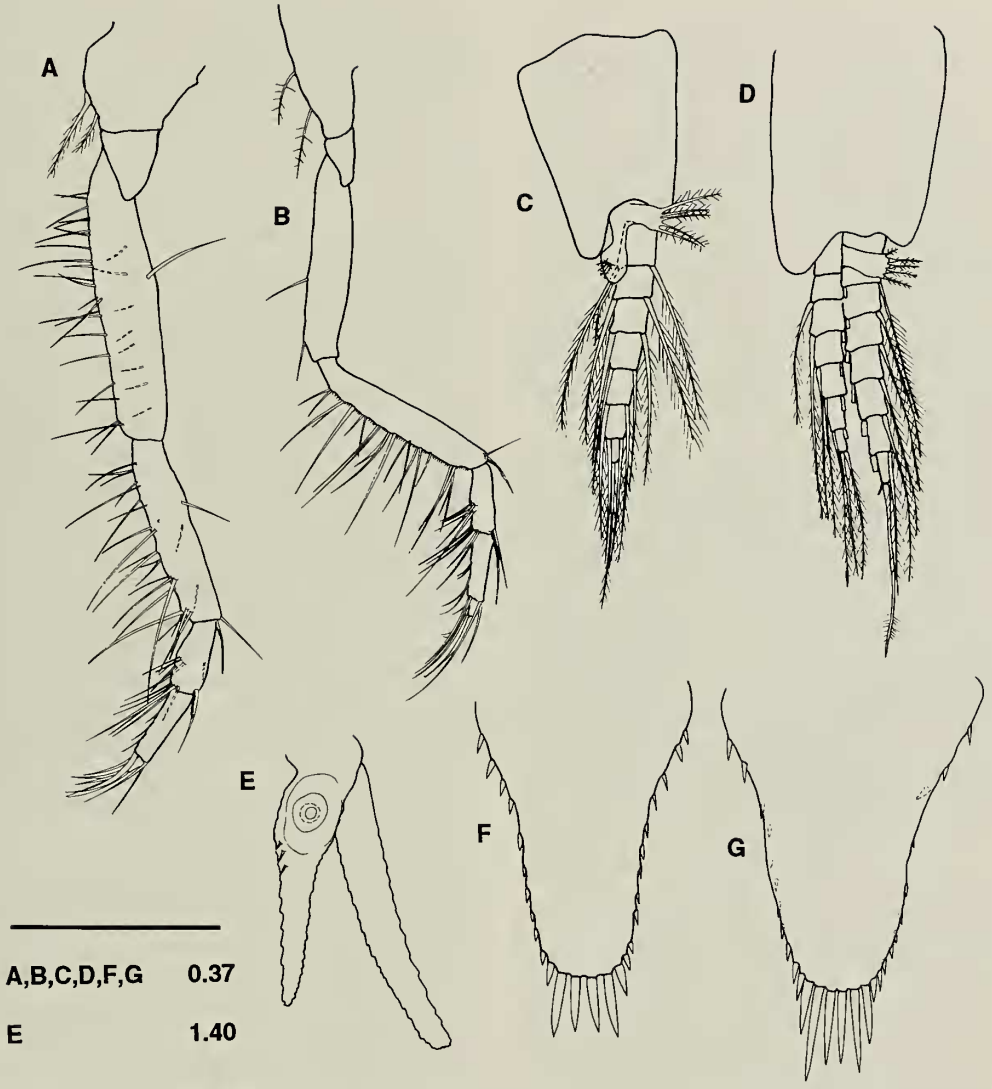

Fig. 2. *Americamysis alleni*, new species. A, endopod, thoracic limb 3; B, endopod, thoracic limb 8; C, male pleopod 1; D, male pleopod 4; E, uropod; F, G, telsons. Scales in mm.

ner lobe with 2 large serrate apical setae subequal in length.

Maxilla (Fig. 1H): typical of genus; exopod with 3–6 plumose setae; endopod 2-articulate, distal article armed with 2–3 submarginal and 16–24 plumose setae on apex and inner margin; lobe of sympodal article 2 with 5 plumose setae; sympodal article 3 bilobed, inner lobe with 10–15 plumose setae, outer lobe with 8–10 plumose setae.

Endopod of thoracic limb 1 (Fig. 1I): robust typical of genus; carpo-propodus twice length of dactyl, distal part with numerous simple setae and serrate spine-setae; dactyl wider than long with numerous simple setae, serrate spine-setae and a single large claw, slightly longer than dactyl.

Endopod of thoracic limb 2: (Fig. 1J, K): large and robust, more developed in females than in males; ischium about ½ length of merus with several simple setae on inner margin; merus subequal in length with carpo-propodus, with 2–3 simple setae on inner proximal margin, 4 simple setae along outer margin; carpo-propodus with 5–10, occasionally 4, flared spiniform setae and numerous simple setae on distal ½ to ⅔ of inner margin; dactyl ⅓ length of carpo-propodus armed with numerous curved, serrate spine-setae, simple setae and a serrate distal claw.

Endopod of thoracic limb 3 (Fig. 2A): basis with 2 plumose setae; ischium 1.5 times as long as merus, setose along inner margin; merus setose along inner margin with serrate seta and simple seta on outer distal margin; 2-segmented carpo-propodus slightly shorter than merus with segments subequal in length, proximal segment with 1 small submarginal serrate seta and 1 large serrate seta on outer distal margin; dactyl small with long, slightly curved claw on distal tip surrounded by several simple setae extending from distal margin of the carpo-propodus.

Endopod of thoracic limb 8 (Fig. 2B): basis with 2 plumose setae; ischium slightly longer than merus with 2 simple setae on distal part of inner margin; merus with many simple setae along inner margin and 1 serrate seta and 1 simple seta on outer distal margin; 2-articulated carpo-propodus 0.7 times length of merus with articles subequal in length, proximal article with 2 serrate setae on outer distal margin; dactyl with slender claw surrounded by several long, simple setae, extending from distal article of carpo-propodus.

Female pleopods reduced to setose uniramus plates.

Male pleopod 1 (Fig 2C): 1-articulated endopod with 1 plumose seta distally, 5 plumose setae proximally and pseudobranchial lobe furnished with 5 terminal plumose setae; 7-articulated exopod.

Male pleopods 2, 3, 5: exopods and endopods 7-segmented.

Male pleopod 4 (Fig. 2D): 7-articulated endopod with pseudobranchial lobe similar to first pleopod; 7-articulated exopod, slightly longer than endopod, setule on outer distal margin of article 7, with long barbed apical spine-setae as long as the 5 distal articles combined.

Uropods (Fig. 2E): exopod 1.3–1.4 times as long as endopod and 1.8–1.9 times as long as telson, outer margin concave, inner margin convex; endopod 1.3–1.4 times as long as telson, inner margin almost straight, outer margin concave, armed with 3–4, occasionally 2 or 5 spine-setae near statocyst; exopod and endopod setose along both inner and outer margins.

Telson (Fig. 2F, G): entire, linguiform, shorter than 6th abdominal segment, 1.4–1.5 times as long as maximum width, lateral margins concave and armed with 10–15 short, stout spine-setae; apex with 3 pairs of strong spine-setae, outermost pair ½–¾ length of inner pairs, innermost pair ⅓ or less length of telson and shorter than, or equal in length to, adjacent pair.

Coloration.—The following description is of preserved specimens collected in Mississippi Sound, Mississippi. Pairs of black chromatophore located dorsally at base of telson and ventrally at base of mandibles and thoracic legs 3 and 7. Posterior ventral margin of abdominal segments 1–5 with a single black chromatophore. Antennular peduncles mottled brown; male lobe with brown along distal and medial margins. Brown along distal margin of sympod of antenna and on distomedial margin of scale. Females with one chromatophore at base of each posterior oostegite.

Distribution.—Inshore and continental shelf waters in the northern Gulf of Mexico from Lavaca Bay, Texas to Mississippi Sound, Mississippi.

Habitat.—Hypoplanktonic in meso or polyhaline waters of bays and shallow continental shelf waters to a depth of 15 m.

Etymology.—This species is named for Dennis Allen in recognition of his contributions to our knowledge of the biology of mysids along the east coast of North America.

Americamysis stucki, new species
Figs. 3–4

Mysidopsis bigelowi, Brattegard 1969:53, fig. 15.—Farrell 1979:32, figs. 1, 2, 11e, f, g.—Stuck et al. 1979:235, figs. 2j, 3j, 4j, 5j.—Price 1982:16 (in part), figs. 18, 21.

Type material.—Holotype: adult ♂ (USNM 253074), length 5.2 mm, SEAMAP station 35056 (30°11.6′N, 88°11.2′W), continental shelf waters off Mississippi, 16 Oct 1981.—Paratypes: 3 ♂, 4 ♀ (USNM 253075), 5 ♂, 5 ♀ (GCRL 1316), same collection data as for holotype.

Additional material examined.—Continental shelf waters off Texas: 3 ♂ (4.4–5.2 mm), 4 ♀ (5.7–6.0 mm), NMFS St. 1 (29°22.5′N, 94°34.0′W), depth 8.2 m, 13 Jan 1969.—14 ♂ (4.3–6.4 mm) 18 ♀ (4.5–5.0 mm), NMFS St. 17 (28°42.4′N, 94°58.0′W), depth 19.2 m, 14 Jan 1969. West coast of Florida: 10 ♂ (3.8–4.6 mm), 10 ♀ (3.9–5.0 mm), Anclote Key St. 15 (28°11.1′N, 82°52.4′W), depth 3.2 m, 23 Jul 1982.—25 ♂ (3.5–5.1 mm), 25 ♀ (3.9–5.0 mm), Tampa Bay St. 9 (27°37.3′N, 82°35.3′W), depth 3.5 m, 15 Jun 1983.—10 ♂ (4.1–4.6 mm), 10 ♀ (4.0–5.2 mm), offshore St. 5 (27°38.8′N, 82°49.7′W), depth 7.6 m, 3 Oct 1981.—8 ♂ (3.6–4.8 mm), 8 ♀ (3.7–4.8 mm), Sarasota Bay St. 8 (27°20.2′N, 82°33.7′W), depth 3.7 m, 7 Jun 1982.—15 ♂ (3.7–4.1 mm) 15 ♀ (3.5–4.9 mm), Charlotte Harbor St. 34 (26°43.5′N, 82°15.4′W), depth 3.7 m, 8 Aug 1982.—7 ♂ (4.8–5.0 mm), 5 ♀ (4.6–5.5 mm), San Carlos Bay St. 55 (26°27.2′N, 82°0.2′W), depth 5.5 m, 11 Jul 1982.—1 ♂ (3.8 mm), 1 ♀ (4.3 mm), Bear Point, Big Marco River St. 63 (25°58.0′N, 81°42.2′W), depth 3.7 m, 12 Jul 1982. All Texas and Florida material collected with epibenthic sled and in collection of WWP.

Diagnosis.—Apex of antennal scale not pointed; endopod of thoracic limb 2 exhibiting sexual dimorphism, in males proximal portion of merus very slender, bearing 4–8 setae along inner margin and 4–6 setae along outer margin, proximal part of merus not as slender in females as in males, inner margin bearing 4–7 setae and outer margin with 3–5 setae; inner margin of carpo-propodus armed with 5–9 spiniform setae; carpo-propodus of thoracic endopods 3–8 2-articulated; exopod of pleopod 4 of male 7-articulated; endopod of uropods armed with 4–5 (rarely 3) spine-setae near statocyst; apex of telson armed with 3 pairs of strong, widely spaced spine-setae, outermost pair ¼ to ⅓ length of inner pairs, innermost pair greater than ⅓ length of telson and slightly longer to subequal in length with adjacent pair.

Description.—General body form (Fig. 3A): moderately slender, adult males to 6.4 mm, females to 6.0 mm; anterior margin of the carapace produced into a short, triangular, rostrum reaching to the bases of the eye-stalks; posterior dorsal margin broadly emarginate exposing thoracic segment 8; anterolateral corners rounded.

Antennular peduncle (Fig. 3B): more robust in males than females; article 1 about as long as articles 2 and 3 combined, distomedial margin armed with 3–4 long sparsely plumose setae and 3–4 shorter plumose setae; distolateral margin with 1 short and 3–4 long plumose setae; medial margin of article 2 with strong simple spine-seta and 5 plumose setae; article 3 with 2 plumose setae along medial margin and group of 6 plumose setae distally, distal margin with dorsomedial lobe bearing 2 tooth-like processes and 4 plumose setae, lateral margin with 1 long and 1 short submarginal plumose seta; males with densely setose lobe on outer ventral surface.

Antenna (Fig. 3C): scale lanceolate, 5.0–5.5 times as long as maximum width, inner margin slightly convex, outer margin slightly concave, all margins setose; lacking distal

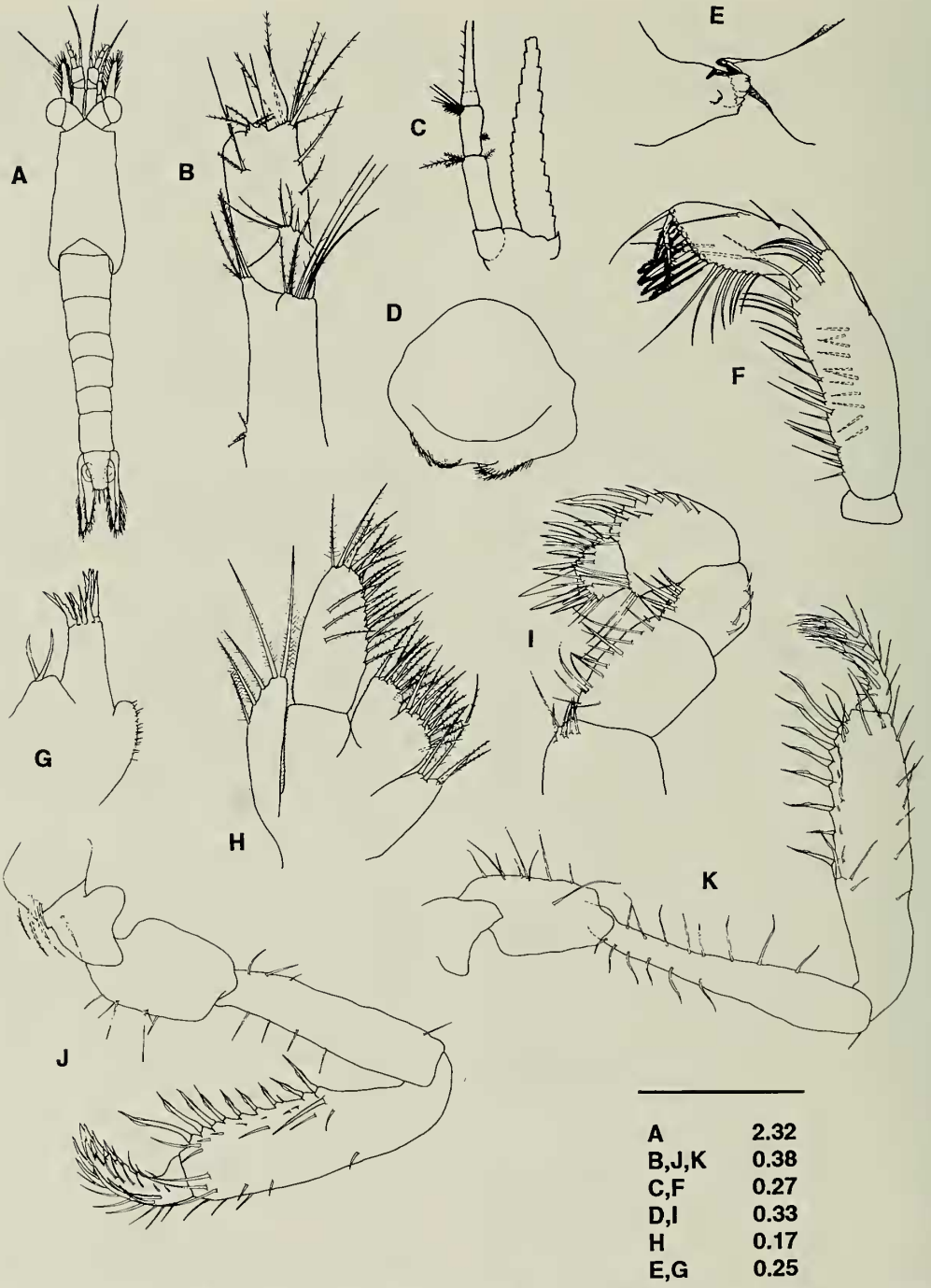

Fig. 3. *Americamysis stucki,* new species. A, adult female, dorsal view; B, antennular peduncle; C, antennal peduncle and scale; D, labrum; E, mandibles; F, mandibular palp; G, maxillule; H, maxilla; I, endopod, thoracic limb 1; J, K, endopod, thoracic limb 2, female, male, respectively. Scales in mm.

article; antennal peduncle extending about ⅔ length of scale, article 2 about 1.5 times as long as 3, having 3 plumose setae on inner distal margin and 1 plumose seta on outer distal margin, article 3 with 4 simple and 2 plumose setae on inner distal margin and 2–3 short plumose setae along outer margin; distolateral corner of sympod with prominent tooth.

Eyes (Fig. 3A): large, cornea wider than distal end of eyestalk, lacking ocular papilla.

Labrum (Fig. 3D): rounded anteriorly; posterior margin with medial emargination, middle ⅔ with fine setae.

Mandible (Fig. 3E): with cutting edges typical of the genus. Palp (Fig. 3F) 3-articulated; article 2 more robust in males than females, armed with 11–12 submarginal setae on mesial surface and 17–19 simple setae on inner surface, distal margin with 4–6 strong simple setae; article 3 ⅔ as long as 2, inner surface with 5–9 marginal and 3–5 submarginal simple setae, distal portion armed with 1 long simple seta, 1 long curved spine barbed along its middle part, and 9 thick, blunt densely barbed spines.

Maxillule (Fig. 3G): outer lobe with 9 stout serrate apical spine-setae; inner lobe with 2 serrate setae subequal in length.

Maxilla (Fig. 3H): typical of genus; exopod with 4 to 7 plumose setae; endopod 2-articulated, distal article armed with 2–4 submarginal and 20–22 plumose setae on apex and inner margin. Lobe of sympodal segment 2 with 4 long plumose setae; sympodal segment 3 bilobed, inner lobe with 12–14 plumose setae, outer lobe with 11 plumose setae.

Endopod of thoracic limb 1 (Fig. 3I): robust, typical of the genus; carpo-propodus twice length of dactyl, distal part with numerous simple setae and strong serrate spine-setae; dactyl as long as wide with numerous simple setae, serrate spine-setae and single large claw, slightly longer than dactyl.

Endopod of thoracic limb 2 (Fig. 3J, K): exhibiting sexual dimorphism; in males (Fig. 3K) merus subequal in length with carpo-propodus, proximal portion very slender, bearing 4–8 simple setae along inner margin, 4 to 6 setae along outer margin and 1 seta on outer distal margin; inner margin of carpo-propodus armed with 5–9 flared spiniform setae gradually increasing in length distally, and a short submarginal seta at the base of each spiniform seta. In females (Fig. 3J) merus ⅔ as long as carpo-propodus, proximal part not as slender as in male, inner margin bearing 4–7 setae, outer proximal margin with 3–5 setae and distal margin with 1 seta; inner margin of carpo-propodus armed with 5–9 flared spiniform setae as in male; dactyl ⅓ length of carpo-propodus, armed with numerous curved serrate spine-setae and serrate distal claw.

Endopod of thoracic limb 3 (Fig. 4A): basis with 3 plumose setae, ischum 1.5 times as long as merus, setose along inner margin; merus setose along inner margin with serrate seta on outer distal margin; 2-articulated carpo-propodus slightly shorter than merus with segments subequal in length, proximal segment with 1 large serrate seta on outer distal margin; dactyl small with long slightly curved claw on distal tip surrounded by several simple setae extending from distal margin of the carpo-propodus.

Endopod of thoracic limb 8 (Fig. 4B): basis with 2 plumose setae; ischium slightly longer than merus with simple setae scattered along entire inner margin; merus with many simple setae along inner margin and 1 serrate and 1 simple seta on outer distal margin; length of 2-articulated carpo-propodus slightly shorter than merus, articles subequal in length, proximal article with 1 submarginal serrate seta and 2 serrate setae on outer distal margin; dactyl with slender terminal claw and minute setule surrounded by several long simple setae extending from distal margin of carpo-propodus.

Female pleopods reduced to setose uniramous plates.

Male pleopod 1 (Fig. 4C): endopod 1-articulate with 1 plumose seta distally, 4–5 plumose setae proximally and pseudo-

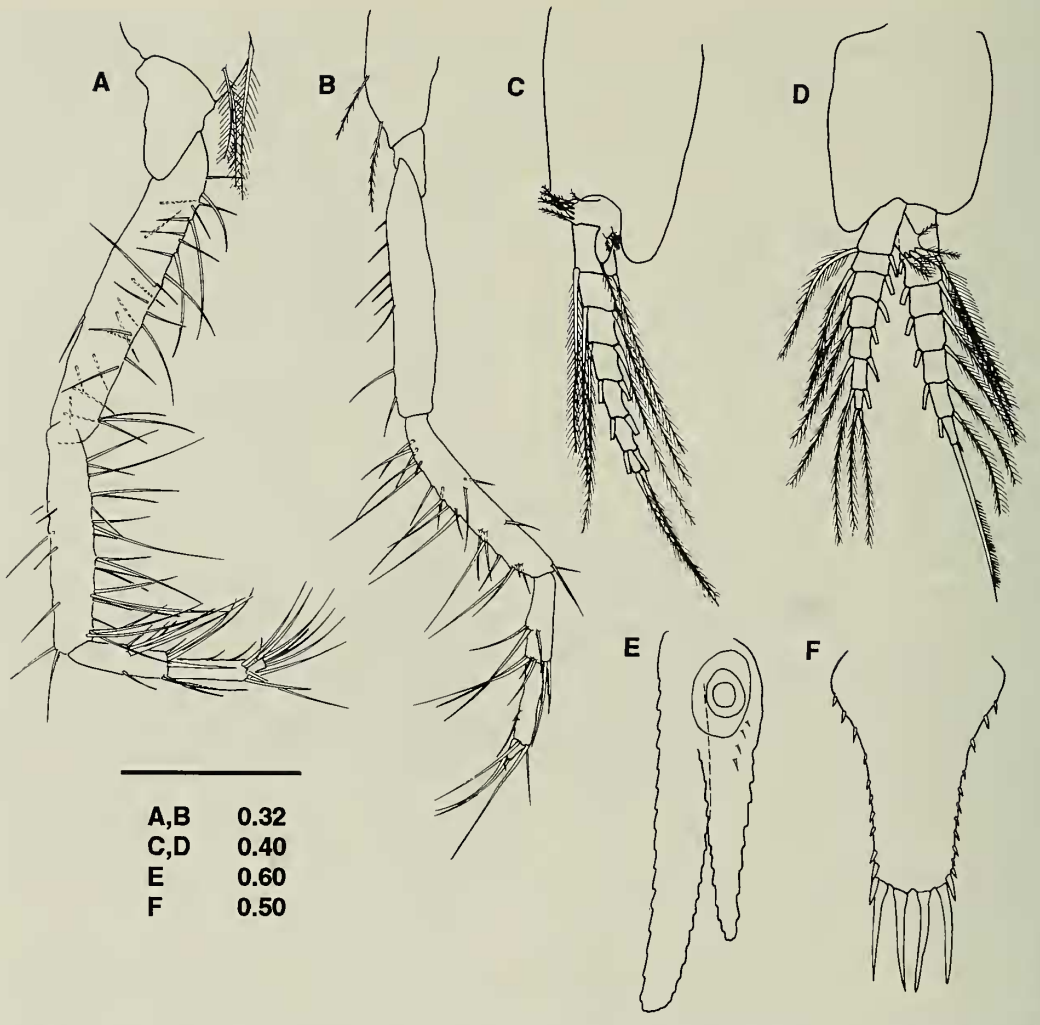

Fig. 4. *Americamysis stucki*, new species. A, endopod, thoracic limb 3; B, endopod, thoracic limb 8; C, male pleopod 1; D, male pleopod 4; E, uropod; F, telson. Scales in mm.

branchial lobe furnished with 1 subterminal and 4–5 terminal plumose setae; exopod 7-articulated.

Male pleopods 2, 3, 5: exopods and endopods 7-articulated.

Male pleopod 4 (Fig. 2D): endopod 7-articulated with pseudobranchial lobe similar to first pleopod; exopod 7-articulated, slightly longer than endopod, setule on outer distal margin of article 7, with long barbed apical spine-seta as long as the 5 distal articles combined.

Uropods (Fig. 4E): exopods 1.2–1.3 times as long as endopod and 2.0 times as long as telson, outer margin concave, inner margin convex; endopod 1.5–1.6 times as long as telson, inner margin almost straight, outer margin concave, armed with 4–5 (rarely 3) spine-setae near statocyst; exopod and endopod setose along both inner and outer margins.

Telson (Fig. 4F): entire, linguiform, shorter than 6th abdominal segment, 1.3–1.5 times as long as maximum width, lateral

margins concave and armed with 9–11 short stout spine-setae; apex armed with 3 pairs of strong widely spaced spine-setae, outermost pair ¼–⅓ length of inner pairs, innermost pair greater than ⅓ length of telson, slightly longer or subequal in length to adjacent pair.

Coloration.—The following description is of a population from Tampa Bay, Florida. In living specimens, pairs of black chromatophore located dorsally at base of telson, and ventrally at base of mandibles and thoracic legs 3 and 7. Posterior ventral margin of abdominal segments 1–5 with a single median black chromatophore; when dispersed, abdominal chromatophore extend laterally and dorsally giving abdomen a mottled brownish appearance; pigmentation from chromatophore of adjacent segments never merges. Abdomen often yellowish, ventral half with pink-purple cast. Eyestalks with brown pigmentation dorsally; cornea black. Antennular peduncles usually mottled light brown; inner flagella pigmented on 10 or fewer proximal segments; male lobe partly brown. Brown along the distal margin of sympod of antenna and on distomedial margin of scale. Carpo-propodus and dactyl of thoracic leg 1 partially or totally brown. Proximal ¼ of inner margins of merus of thoracic legs 3–6 brown. Longitudinal brown line extending length of proximal segment of thoracic exopods 2–7. Females with one chromatophore at base of each posterior oostegite. Sympods of male pleopods 1–5 partially brown. Exopod of uropod with ⅓ or less of distomedial margin lined with brown. Endopod of uropod with ½–⅔ of distomedial margin lined with brown.

In preserved specimens the following coloration persists. Pairs of chromatophore at bases of telson, mandibles, thoracic legs 3 and 7. Single chromatophore on abdominal segments 1–5, posterior oostegites. Partial pigmentation on male lobe and distomedial margins of uropods.

Distribution.—Continental shelf waters in northern Gulf of Mexico between Texas and Alabama. Continental shelf waters to 20 m and inshore waters of west coast of Florida from Anclote Key to Marco Island.

Habitat.—Bottom plankton in deeper waters of bays and bottom, mid and surface water plankton in continental shelf waters to a depth of 200 m.

Etymology.—This species is named for Kenneth Stuck in recognition of his excellent work on malacostracan Crustacea of the Gulf of Mexico.

Remarks.—*Americamysis alleni,* n. sp. and *A. stucki,* n. sp. are morphologically most similar and apparently most closely related to *A. bigelowi.* They can be distinguished from *A. bigelowi* and each other by the setation of the second thoracic endopod and the telson. Table 3 presents characters that may be used to distinguish the six species of *Americamysis.*

The following key separates the species of *Americamysis* and the seven species of *Mysidopsis* (excluding *M. cojimarensis*) that have a 2-articulate carpo-propodus on thoracic endopods 3–8 and a normally developed mandibular palp. As mentioned earlier *M. cojimarensis* may not belong to *Mysidopsis.*

Key to the Species of *Americamysis* and the Species of *Mysidopsis* having a 2-articulate Carpo-propodus on Thoracic Endopods 3–8

1. Lateral margin of telson lacking spine-setae (only terminal spine setae present) 2
– Lateral margin of telson with spine-setae 3
2. Telson entire with 3 pairs of terminal spine-setae; uropodal endopod with 2 ventral spine-setae adjacent to statocyst near inner margin .... *Mysidopsis suedafricana* O. Tattersall, 1969
– Telson weakly cleft with single spine seta on each apical lobe; uro-

Table 3.—Common and specific adult characters of *Americamysis* species.

Characters	Species					
	almyra	*bahia*	*bigelowi*	*stucki*, new species	*alleni*, new species	*taironana*
Anterior dorsal margin of carapace	broadly rounded	short, triangular rostrum	short, triangular rostrum	short, triangular rostrum	short, triangular rostrum	well developed rostrum
Distal article on antennal scale	absent	absent	absent	absent	absent	absent
Length/width ratio of antennal scale	6.0–6.5	6.0–6.5	6.0	5.0–5.5	5.5–6.0	5.0
No. articles in carpo-propodus of thoracic endopods 3–8	2	2	2	2	2	2
Thoracic endopod 2 of ♂, ♀	normally developed	normally developed	normally developed	merus more slender in ♂♂ than ♀♀	normally developed	normally developed
No. seta on inner margin of merus of thoracic endopod 2	7–18	7–18	2	4–8	2–3	4
No. setae on inner margin of carpopropodus of thoracic endopod 2	2–3	2–3	6–12, spiniform	5–9, spiniform, flared	4–10, spiniform, flared	3
No. articles no exopod of male pleopod 4	7	7	7–8	7	7	6
No. spine-setae on uropodal endopod	1	1–5, usually 2–3	5, rarely 3–4	4–5, rarely 3	3–4, rarely 2 or 5	2–4, usually 3
No. pairs of apical telson spine-setae	4–8	3–6	3	3	3	2
Length of apical telson spine-setae in relation to lateral spine-setae	gradually increasing	abruptly increasing	abruptly increasing	abruptly increasing	abruptly increasing	abruptly increasing
Length of inner most apical spine-setae of telson/length of adjacent pair	1.1–1.3	1.1–1.2	1.0–1.1	1.0–1.1	0.9–1.0	1.4–1.6

podal endopod with 10–20 ventral spine-setae along inner margin .. ... *Mysidopsis bispinulata* Brattegard, 1974

3. Antennal scale with distal article 4
Antennal scale lacking distal article 8
4. Tip of antennal scale with setae, not spiniform; uropodal endopod with inner margin wavy, armed with groups of spines inserted between setae 5
– Tip of antennal scale without setae, acute, spiniform; uropodal endopod inner margin not wavy, lacking armed processes along inner margin; 18–50 ventral spine-setae extending distally from statocyst near inner margin 6
5. Area adjacent to statocyst with single spine-seta; uropodal endopod with inner margin having 6–7 wavy shallow processes each armed with 2–4 spines .... *Mysidopsis ankeli* Brattegard, 1973
– Area adjacent to statocyst lacking spine-seta; uropodal endopod with inner margin with 8 wavy processes each armed with 5–7 spines .... *Mysidopsis intii* Holmquist, 1957
6. Uropodal endopod with more than 45 spine-setae along inner ventral margin .... *M. californica* W. Tattersall, 1932
– Uropodal endopod with 15–25 spine-setae along inner ventral margin 7
7. Uropodal endopod having inner ventral surface near posterior margin of statocyst with stout rounded spine-setae producing pad-like appearance; telson with marginal spine-setae gradually becoming larger and longer toward apex ... .. *Mysidopsis tortonesi* Băcescu, 1968
– Uropodal endopod lacking stout rounded spine-setae on inner surface near statocyst; telson with apical 2 pairs of spine-setae much more robust and distinctly longer than anterolateral pair .... *Mysidopsis robustispina* Brattegard, 1969
8. Rostrum well-developed, extending to distal ⅓ of first peduncular article of antennule; telson with innermost apical pair of spine-setae over ⅓ longer than adjacent pair *Americamysis tarionana* (Brattegard, 1973)
– Rostrum not well-developed, not extending past proximal ½ of first peduncle article of antennule; telson with innermost apical pair of spine-setae subequal, equal, or only slightly longer than adjacent pair 9
9. Carpo-propodus of second thoracic endopod with 2–3 setae on distal part of inner margin, merus with 7–18 setae on proximal ⅔ of inner margin 10
– Carpo-propodus of second thoracic endopod with series of 4–12 spiniform setae on distal ½ to ⅔ of inner margin, merus with 2–8 spine-setae on inner margin 11
10. Anterior margin of carapace (rostral shield) broadly rounded; uropodal endopod with 1 spine near statocyst; apex of telson of adults usually with 4–8 pairs long slender spine-setae .... *Americamysis almyra* (Bowman, 1964)
– Anterior margin of carapace produced to form short triangular rostrum; uropodal endopod with 1–5 (normally 2–3) spine-setae near statocyst; apex of telson of adults usually with 3–6 pairs of long slender spine-setae .... *Americamysis bahia* (Molenock, 1969)
11. Telson with innermost spine or pair of spines on apex shorter than, or equal in length to adjacent pair,

never longer; uropodal endopod usually with 3–4, occasionally 2–5, spine-setae near statocyst .... *Americamysis alleni,* new species

– Telson with innermost spines slightly longer, never shorter than adjacent pair; uropodal endopod usually with 5 (occasionally 4, rarely 3) spine-setae near statocyst ... 12

12. Endopod of second thoracic limb normally developed in both sexes, merus (article 5) with 2 setae on proximal inner margin; carpopropodus with inner margin armed with an irregularly alternating row of short and long spiniform setae ... *Americamysis bigelowi* (Tattersall, 1951)

– Endopod of second thoracic limb with merus in male very slender, merus in both sexes with 4–8 setae spaced along entire inner margin, carpo-propodus with inner margin armed with spiniform setae gradually increasing in length distally *Americamysis stucki,* new species

The genus *Americamysis* is presently known only from the Northwest Atlantic. Its species occur in estuarine and shelf waters along the coasts of the Americas from the northeastern United States to Colombia. The type species, *A. bigelowi* has been reported from off Massachusetts (Georges Bank) southward to Florida and westward along the Gulf coast to Aransas Bay, Texas (Tattersall 1951; Clark 1956; Bowman 1964; Brattegard 1969; Wigley & Burns 1971; Stuck et al. 1979a, 1979b; Stuck & Heard 1981, Modlin 1982, Price et al. 1986). Based on our present studies *A. bigelowi* appears to be restricted to the east coast of the United States. All the Gulf of Mexico records for this species are now referable to either *A. alleni* or *A. stucki,* which both appear to be endemic to this region. *Americamysis alleni,* an inshore bay species, is currently known from the northwestern and northern central Gulf, whereas, *A. stucki,* commonly found in higher salinity, near shore waters, is known from southeastern Gulf westward to Texas.

Americamysis almyra and *A. bahia* are closely related species with similar distributions, however, the former is generally found in lower salinities than the latter species. Both are reported from inshore waters along the entire coast of the Gulf of Mexico from Terminos Lagoon, Mexico to the southwestern Everglades in South Florida (Bowman 1964; Brattegard 1969, 1970; Molenock 1969; Price 1978, 1982; Stuck et al. 1979a, 1979b; Escobar-Briones and Soto 1988). The ranges of both species extend northward along the Atlantic east to Patapsco River, Maryland (Grabe 1981) for *A. almyra* and to Narragansett, Rhode Island (Lussier et al. 1988) for *A. bahia.*

Americamysis taironana, the only member of the genus not found in North American waters, occurs along the Caribbean coasts of Colombia and Panama (Brattegard 1973, 1974a, 1974b).

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